

Integrin α M (Bear-1): sc-52686

BACKGROUND

Integrin α M, also designated complement component receptor-3 α , CD11b (p170), macrophage antigen α polypeptide, cell surface glycoprotein Mac-1 α subunit, MAC1A, MO1A and ITGAM) is a cell adhesion molecule that acts as a receptor for cell surface ligands such as intracellular adhesion molecules (ICAMs) or soluble ligands. Integrins are heterodimeric proteins that contain an α chain and β chain. Integrin α M combines with the Integrin β 2 to form a leukocyte-specific integrin referred to as macrophage receptor 1 (Mac-1), or inactivated-C3b (iC3b) receptor 3 (CR3). Integrin α M/ β 2 is important in the adherence of neutrophils and monocytes to stimulated endothelium, and also in the phagocytosis of complement coated particles.

REFERENCES

1. Nathan, C., et al. 1990. Tumor necrosis factor and CD11/CD18 (β 2) integrins act synergistically to lower cAMP in human neutrophils. *J. Cell Biol.* 111: 2171-2181.
2. David, V., et al. 1991. Proliferation of resting lymphocytes is induced by triggering T cells through an epitope common to the three CD18/CD11 leukocyte adhesion molecules. *Cell. Immunol.* 136: 519-524.
3. Majima, T., et al. 1993. Defective mononuclear cell antibody-dependent cellular cytotoxicity (ADCC) in patients with leukocyte adhesion deficiency emphasizing on different CD11/CD18 requirement of Fc γ RI versus Fc γ RII in ADCC. *Cell. Immunol.* 148: 385-396.
4. Li, R., et al. 1995. A peptide derived from the intercellular adhesion molecule-2 regulates the avidity of the leukocyte integrins CD11b/CD18 and CD11c/CD18. *J. Cell. Biol.* 129: 1143-1153.
5. Mazzone, A., et al. 1995. Leukocyte CD11/CD18 integrins; biological and clinical relevance. *Haematologica* 80: 161-175.
6. Nueda, A., et al. 1995. Hematopoietic cell-type-dependent regulation of leukocyte integrin functional activity: CD11b and CD11c expression inhibits LFA-1-dependent aggregation of differentiated U-937 cells. *Cell. Immunol.* 164: 163-169.
7. Walzog, B., et al. 1995. The leukocyte integrin Mac-1 (CD11b/CD18) contributes to binding of human granulocytes to collagen. *Exp. Cell Res.* 218: 28-38.

CHROMOSOMAL LOCATION

Genetic locus: ITGAM (human) mapping to 16p11.2.

SOURCE

Integrin α M (Bear-1) is a mouse monoclonal antibody raised against purified monocytes of human origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as fluorescein conjugate for flow cytometry, sc-52686 FITC, 100 tests.

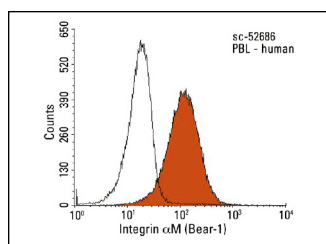
APPLICATIONS

Integrin α M (Bear-1) is recommended for detection of Integrin α M of human origin by immunoprecipitation [1–2 μ g per 100–500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1×10^6 cells).

Suitable for use as control antibody for Integrin α M siRNA (h): sc-37261, Integrin α M shRNA Plasmid (h): sc-37261-SH and Integrin α M shRNA (h) Lentiviral Particles: sc-37261-V.

Molecular Weight of Integrin α M: 170 kDa.

DATA



Integrin α M (Bear-1): sc-52686. Indirect FCM analysis of human peripheral blood leukocytes stained with Integrin α M (Bear-1), followed by PE-conjugated goat anti-mouse IgG: sc-3738. Black line histogram represents the isotype control, normal mouse IgG: sc-3877.

SELECT PRODUCT CITATIONS

1. Park, S.Y., et al. 2008. Immune evasion of *Enterococcus faecalis* by an extracellular gelatinase that cleaves C3 and iC3b. *J. Immunol.* 181: 6328-6336.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.